

APPENDIX A

CLAIMS AFTER ENTRY AMENDMENT DATED 2/01/01

U.S. Patent Application Serial No. 09/284,114
Entitled: A MOUSE STRAIN WITH NATURAL ONSET
OF AUTOIMMUNE ARTHRITIS
Applicant: Shimon Sakaguchi
Filing Date: April 7, 1999
Hiraki Ref.: PH-425PCT-US
F&R Ref.: 07898-038001



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1. (Twice amended) An inbred mouse strain, derived from BALB/c mice, selected for the trait of developing autoimmune arthritis, wherein the inbred mouse strain is denoted SKG.
2. (Amended) The inbred mouse strain of claim 1, wherein the autoimmune arthritis comprises rheumatoid arthritis.
3. (Amended) The inbred mouse strain of claim 1, wherein the autoimmune arthritis is characterized by arthritis developing in the joints of the forelegs and hind legs and progressing to joint stiffening.
4. (Amended) The inbred mouse strain of claim 1, wherein the mouse produces an autoantibody reactive with type II collagen.
5. (Amended) The inbred mouse strain of claim 1, wherein onset of autoimmune arthritis begins at about 3 to 4 months after birth of the mouse.
6. (Amended) A method of producing an SKG mouse derived from a BALB/c mouse, wherein the SKG mouse comprises the trait of developing an autoimmune arthritis, the method comprising the steps of:
 - (a) breeding a selected SKG mouse with a BALB/c mouse to produce offspring;
 - (b) screening the offspring for the trait of autoimmune arthritis; and

(c) identifying an offspring that develops autoimmune arthritis, thereby producing the SKG mouse comprising the trait of developing an autoimmune arthritis.

7. (Amended) The method of claim 6 wherein the BALB/c mouse is an SKG mouse.

8. (Amended) A method of producing a mouse that develops autoimmune arthritis comprising:

- (a) breeding an SKG mouse with a second mouse to produce offspring;
- (b) screening the offspring for onset of autoimmune arthritis; and
- (c) identifying an offspring that develops autoimmune arthritis, thereby producing a mouse that develops autoimmune arthritis.

9. The method of claim 8 wherein the second mouse is not a BALB/c mouse strain.

10. A method of identifying a therapy that decreases a symptom of rheumatoid arthritis comprising:

- (a) treating a mouse of claim 1 with a potential therapy; and
- (b) determining whether the potential therapy decreases a symptom of autoimmune arthritis in the mouse,

wherein identification of a potential therapy that decreases a symptom of autoimmune arthritis in the mouse identifies a therapy that decreases a symptom of rheumatoid arthritis.

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11. The method of claim 10, wherein the symptom is selected from the group consisting of: arthritis in a foreleg or hind leg joint, joint stiffening, destruction of joint cartilage or bone, lymphocyte infiltration of joint cartilage or bone and production of type II collagen autoantibody.